

=> b reg

FILE 'REGISTRY' ENTERED AT 08:26:30 ON 08 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 7 MAR 2006 HIGHEST RN 876109-17-0
DICTIONARY FILE UPDATES: 7 MAR 2006 HIGHEST RN 876109-17-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

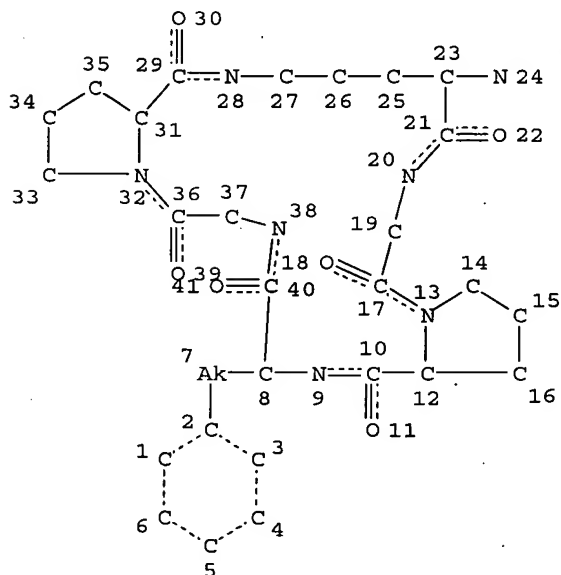
Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d que sta 111

L4 STR

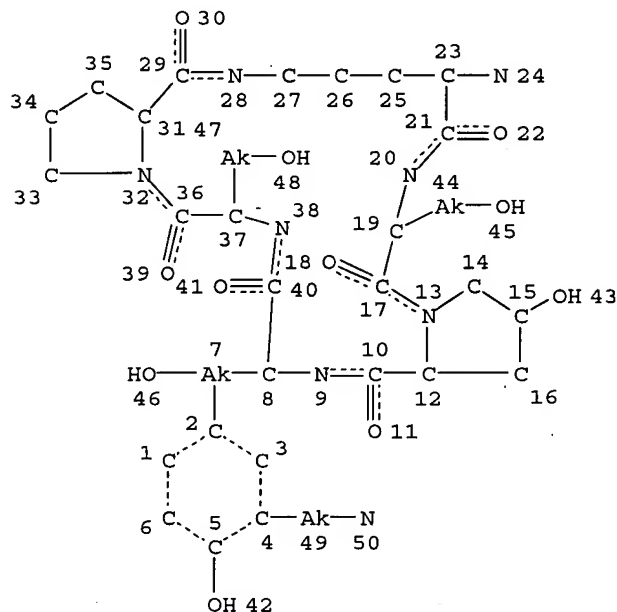


NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE
L5 4101 SEA FILE=REGISTRY SSS FUL L4
L9 STR



NODE ATTRIBUTES:
NSPEC IS RC AT 50
CONNECT IS M4 RC AT 7
CONNECT IS E2 RC AT 24
CONNECT IS E3 RC AT 27
CONNECT IS M2 RC AT 50
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 50

STEREO ATTRIBUTES: NONE
L11 47 SEA FILE=REGISTRY SUB=L5 SSS FUL L9

100.0% PROCESSED 3494 ITERATIONS
SEARCH TIME: 00.00.01

47 ANSWERS

=> b hcap
FILE 'HCAPLUS' ENTERED AT 08:26:41 ON 08 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available

for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Mar 2006 VOL 144 ISS 11
FILE LAST UPDATED: 7 Mar 2006 (20060307/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> => d all fhitrn hitrn l12 tot

L12 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:213956 HCAPLUS
DN 141:23332
ED Entered STN: 18 Mar 2004
TI Mannich reaction: an approach for the synthesis of water soluble mulundocandin analogues
AU Lal, Bansi; Gund, Vitthal Genbhau; Bhise, Nandu Baban; Gangopadhyay, Ashok Kumar
CS Quest Institute of LifeSciences, Nicholas Piramal India Limited, Mumbai, 4000 80, India
SO Bioorganic & Medicinal Chemistry (2004), 12(7), 1751-1768
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Ltd.
DT Journal
LA English
CC 26-9 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 10
OS CASREACT 141:23332
AB Semisynthetic modifications at the hydroxy tyrosine (HTyr) unit of mulundocandin were carried out to improve its aqueous solubility. Mulundocandin is a lipopeptide isolated from *Aspergillus sydowii*. A single step introduction of substituted aminomethyl groups at the ortho position(s) of phenolic hydroxyl of HTyr unit of mulundocandin has been achieved in 7-85% yield. The in vitro screening of Mannich products against *Candida albicans* and *Aspergillus fumigatus*, retained the in vivo activity of parent by oral and i.p. route. One compound showed significant improvement in activity over mulundocandin and activity compares well with that of fluconazole.
ST mulundocandin prepn aq soly Mannich reaction aminomethylation; echinocandin mulundocandin prepn aq soly Mannich reaction aminomethylation; fungicide mulundocandin prepn aq soly Mannich reaction aminomethylation; antifungal mulundocandin prepn aq soly Mannich reaction aminomethylation; *Candida* mulundocandin prepn aq soly Mannich reaction aminomethylation; *Aspergillus* mulundocandin prepn aq soly Mannich reaction aminomethylation
IT Mannich bases
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(mulundocandin derivs.; preparation of water-soluble mulundocandin analogs using Mannich reaction and study of their antifungal activity)
IT Fungicides
Mannich reaction
Solubility
(preparation of water-soluble mulundocandin analogs using Mannich reaction and study of their antifungal activity)
IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(secondary; preparation of water-soluble mulundocandin analogs using Mannich

- reaction and study of their antifungal activity)
- IT 321660-99-5P 321661-15-8P 321661-17-0P
 321661-19-2P 321661-20-5P 321661-21-6P
 321661-23-8P 321661-24-9P 321661-28-3P
 321661-30-7P 321661-33-0P 321661-34-1P
 321661-44-3P 321661-45-4P 321661-46-5P
 321745-46-4P 321745-50-0P 321745-54-4P
 321745-60-2P 693827-53-1P 697758-53-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation)
 (preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)
- IT 92-54-6, 1-Phenylpiperazine 100-51-6, Benzenemethanol, reactions
 102-97-6, N-(1-Methylethyl)benzenemethanamine 110-89-4, Piperidine,
 reactions 123-75-1, Pyrrolidine, reactions 626-58-4,
 4-Methylpiperidine 1008-91-9, 1-(4-Pyridinyl)piperazine 1011-15-0,
 4-(2-Fluorophenyl)piperazine 2252-63-3, 1-(4-Fluorophenyl)piperazine
 2759-28-6, 1-(Phenylmethyl)piperazine 3378-72-1, N-(1,1-
 Dimethylethyl)benzenemethanamine 4897-50-1, 1,4'-Bipiperidine
 15532-75-9, 4-[3-(Trifluoromethyl)phenyl]piperazine 20980-22-7,
 2-(1-Piperazinyl)pyrimidine 34803-66-2, 1-(2-Pyridinyl)piperazine
 39512-50-0 39512-51-1, 1-(2-Methylphenyl)piperazine 39593-08-3,
 1-(4-Methylphenyl)piperazine 69628-75-7, 1-(1-Phenylethyl)piperazine
 108351-20-8, Mulundocandin 321660-97-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)
- IT 321660-96-2P 321745-36-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)
- IT 321660-98-4P 321661-01-2P 321661-04-5P
 321661-05-6P 321661-06-7P 321661-07-8P
 321661-11-4P 321661-13-6P 321661-22-7P
 321661-25-0P 321661-26-1P 321661-31-8P
 321661-32-9P 321661-43-2P 321745-40-8P
 321745-42-0P 321745-44-2P 321745-48-6P
 321745-52-2P 693827-50-8P 693827-51-9P 693827-52-0P
 693827-54-2P 697758-50-2P 697758-51-3P
 697758-52-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)
- RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Ablordeppey, S; Curr Med Chem 1999, V6, P1151 HCAPLUS
 - (2) Bailey, E; Pharmacotherapy 1990, V10, P146 MEDLINE
 - (3) Balani, S; Drug Metab Dispos 2000, V28, P1274 HCAPLUS
 - (4) Balkovec, J; J Med Chem 1992, V35, P194 HCAPLUS
 - (5) Bartizal, K; Antimicrob Agents Chemother 1992, V36, P1648 HCAPLUS
 - (6) Bartizal, K; Antimicrob Agents Chemother 1997, V41, P2326 HCAPLUS
 - (7) Beck-Sague, C; J Infect Dis 1993, V167, P1247 MEDLINE
 - (8) Black, R; Bioorg Med Chem Lett 1997, V7, P2879 HCAPLUS
 - (9) Bundgaard, H; Methods in Enzymology 1985, V112, P347 HCAPLUS
 - (10) Cagniant, P; Eur J Med Chem 1980, V15, P439 HCAPLUS
 - (11) de Narvaez, R; Igne Quim Nova 1985, V8, P38
 - (12) Debono, M; Ann Rev Microbiol 1994, V48, P471 HCAPLUS
 - (13) Debono, M; J Med Chem 1995, V38, P3271 HCAPLUS
 - (14) Denning, D; J Antimicrob Chemother 1997, V40, P401 HCAPLUS
 - (15) Dimmock, J; Eur J Med Chem Chim Ther 1983, V18, P248 HCAPLUS
 - (16) Fanos, V; J Chemother 2000, V12, P463 HCAPLUS
 - (17) Flick, K; Arzneimittel Forsch 1978, V28, P107 HCAPLUS
 - (18) Fowler, J; J Org Chem 1977, V42, P2637 HCAPLUS
 - (19) Fox, R; J Infect 1991, V22, P201 MEDLINE
 - (20) Frosco, M; Expert Opin Invest Drugs 1998, V7, P175 HCAPLUS

- (21) Gallis, H; Rev Inf Dis 1990, V12, P308 MEDLINE
- (22) Green, L; Antimicrob Agents Chemother 1999, V43, P830 HCAPLUS
- (23) Grutsch, J; WO---9906062 1999 HCAPLUS
- (24) Gund, B; Bioorg Org Med Chem 2003, V11, P5189
- (25) Hawser, S; J Antibiot 1999, V52, P305 HCAPLUS
- (26) Hawser, S; J Antimicrob Chemother 1999, V43, P411 HCAPLUS
- (27) Hitchcock, C; Antimicrob Agents Chemother 1993, V37, P1962 HCAPLUS
- (28) Iwamoto, T; J Antibiot 1994, V47, P1092 HCAPLUS
- (29) Jarvis, W; Clin Infect Dis 1995, V20, P1526 MEDLINE
- (30) Kurtz, M; J Med Vet Mycol 1997, V35, P79 MEDLINE
- (31) Lal, B; WO---0107468 A2 2001 HCAPLUS
- (32) Lewis, R; Am J Health-Syst Pharm 1999, V56, P525 MEDLINE
- (33) Lorian, V; Antibiotics in Laboratory Medicine, 3rd ed 1991, P16
- (34) Masuda, K; J Labelled Compound 1975, V11, P301 HCAPLUS
- (35) Masurekar, P; J Antibiot 1992, V45, P1867 HCAPLUS
- (36) Mukhopadhyay, T; J Antibiot 1987, V40, P281
- (37) Nakatsuka, I; J Labelled Comp Radiopharm 1981, V18, P495 HCAPLUS
- (38) Nawada, R; J Clin Microb 1996, V34, P1433 MEDLINE
- (39) Onishi, J; Antimicrob Agents Chemother 2000, V44, P368 HCAPLUS
- (40) Pfaller, M; Clin Infect Dis 1994, V19(suppl 1), PS8
- (41) Pfaller, M; Eur J Clin Microbiol Infect Dis 1992, V11, P287 MEDLINE
- (42) Pizzo, P; Am J Med 1984, V76, P101 MEDLINE
- (43) Poplevskaya, I; Tr Inst Khim Nauk, Akad Kaz SSR 1980, V52, P52 HCAPLUS
- (44) Pound, M; Curr Opin Infect Dis 2002, V15, P183
- (45) Rees, J; Clin Infect Dis 1998, V27, P1138 MEDLINE
- (46) Roy, K; J Antibiotics 1987, V40, P275 HCAPLUS
- (47) Samonis, G; In vivo 1992, V6, P183 MEDLINE
- (48) Sanglard, D; Antimicrob Agents Chemother 1995, V39, P2378 HCAPLUS
- (49) Schreier von, E; Helv Chim Acta 1976, V59, P585
- (50) Smith, D; J Infect 1991, V23, P345 MEDLINE
- (51) Thiele, K; Arzneim - Forsch 1980, V30, P747 HCAPLUS
- (52) Thompson, B; J Pharm Sci 1968, V57, P715 HCAPLUS
- (53) Tomishima, M; J Antibiot 1999, V52, P674 HCAPLUS
- (54) Tramontini, M; Synthesis 1973, P703 HCAPLUS
- (55) Tramontini, M; Tetrahydron 1990, V46, P1791 HCAPLUS
- (56) Valentin, A; Antimicrob Agents Chemother 1996, V40, P1342 HCAPLUS
- (57) Walsh, T; Adv Pediatr Infect Dis 1996, V11, P187 MEDLINE
- (58) Walsh, T; Antimicrob Agents Chemother 1991, V35, P1321 HCAPLUS
- (59) Walsh, T; Diagn Microbiol Infect Dis 1990, V13, P37 MEDLINE
- (60) Werner, W; Pharmazie 1977, V32, P341 HCAPLUS

IT 321660-99-5P

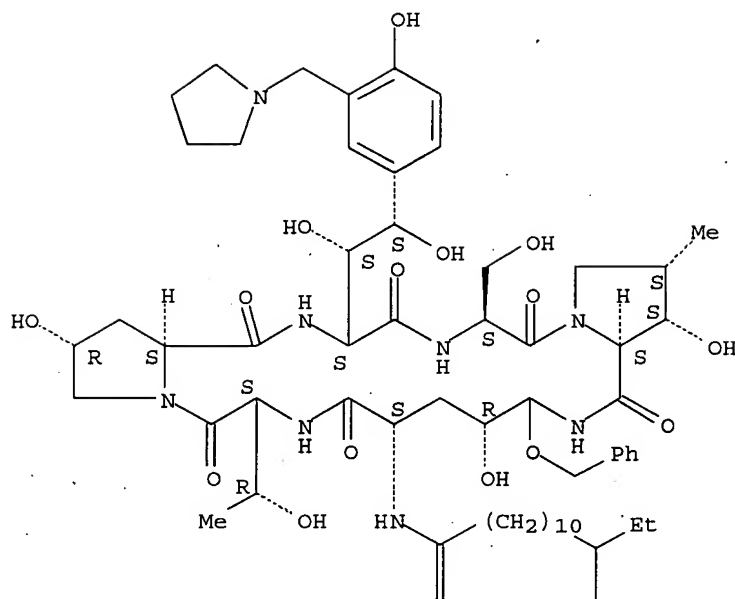
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation)
(preparation of water-soluble mulundocandin analogs using Mannich reaction and
study of their antifungal activity)

RN 321660-99-5 HCAPLUS

CN Mulundocandin, 1-[(4R)-4-hydroxy-N2-(12-methyl-1-oxotetradecyl)-5-
(phenylmethoxy)-L-ornithine]-4-[(4S)-4-hydroxy-4-[4-hydroxy-3-(1-
pyrrolidinylmethyl)phenyl]-L-threonine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 321660-99-5P 321661-15-8P 321661-17-0P
 321661-19-2P 321661-20-5P 321661-21-6P
 321661-23-8P 321661-24-9P 321661-28-3P
 321661-30-7P 321661-33-0P 321661-34-1P
 321661-44-3P 321661-45-4P 321661-46-5P
 321745-46-4P 321745-50-0P 321745-54-4P
 321745-60-2P 697758-53-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation)

(preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)

IT 321660-98-4P 321661-01-2P 321661-04-5P
 321661-05-6P 321661-06-7P 321661-07-8P
 321661-11-4P 321661-13-6P 321661-22-7P
 321661-25-0P 321661-26-1P 321661-31-8P
 321661-32-9P 321661-43-2P 321745-40-8P
 321745-42-0P 321745-44-2P 321745-48-6P
 321745-52-2P 693827-54-2P 697758-51-3P
 697758-52-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of water-soluble mulundocandin analogs using Mannich reaction and
 study of their antifungal activity)

L12 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:78409 HCAPLUS

DN 134:131818

ED Entered STN: 02 Feb 2001

TI Preparation of novel cyclohexapeptides based on mulundocandin for use as
 antifungal agents

IN Bansil, Lal; Vitthal, Genbhou Gund; Ashok, Kumar Gangopadhyay

PA Aventis Pharma Deutschland G.m.b.H., Germany
 SO PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07K-0007/56
 ICS A61K-0038/12; A61P-0031/10
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1

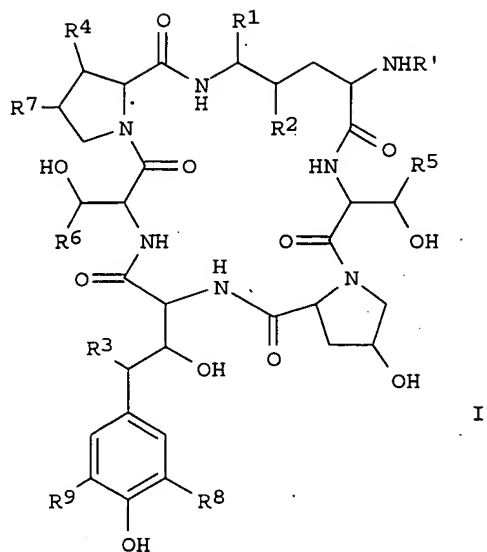
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO2001007468	A2	20010201	2000WO-EP06769	20000715
WO2001007468	A3	20011108		
W:				
AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA---2380176	AA	20010201	2000CA-2380176	20000715
EP---1204677	A2	20020515	2000EP-0953050	20000715
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP2003505468	T2	20030212	2001JP-0512551	20000715
PRAI 1999EP-0114649	A	19990727		
2000WO-EP06769	W	20000715		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001007468	ICM	C07K-0007/56
	ICS	A61K-0038/12; A61P-0031/10
	IPCI	C07K0007-56 [ICM,7]; A61K0038-12 [ICS,7]; A61P0031-10 [ICS,7]
	IPCR	A61K0038-00 [N,A]; A61K0038-00 [N,C]; C07K0007-00 [I,C]; C07K0007-56 [I,A]
	ECLA	C07K0007/56
CA---2380176	IPCI	C07K0007-56 [ICM,7]; A61P0031-10 [ICS,7]; A61K0038-12 [ICS,7]
EP---1204677	IPCI	C07K0007-56 [ICM,6]; A61K0038-12 [ICS,6]; A61P0031-10 [ICS,6]
	IPCR	A61K0038-12 [I,A]; A61K0038-12 [I,C]; A61P0031-00 [I,C]; A61P0031-10 [I,A]; C07K0007-00 [I,C]; C07K0007-56 [I,A]
JP2003505468	IPCI	C07K0007-56 [ICM,7]; A61K0038-00 [ICS,7]; A61P0031-04 [ICS,7]
OS	CASREACT	134:131818; MARPAT 134:131818
GI		

APP.



- AB Cyclohexapeptides I [R' = alkyl, alkenyl, Ph, biphenyl, terphenyl, naphthyl, alkyl-, alkenyl-, or alkoxyphenyl, linoleoyl, palmitoyl, 12-methylmyristoyl, 10,12-dimethylmyristoyl, or COC6H4OC8H17-p; R1, R3 = OH, CN, CH2NH2, N3, (un)substituted aryl or heterocyclyl with 1-3 of the same or different heteroatoms, aminoalkylamino, (un)substituted alkoxy, etc.; R2, R4 = H, OH; R5 = H, Me; R6 = H, Me, CH2CONH2; R7 = H, Me, OH; R8, R9 = H or secondary aminomethyl] or their pharmaceutically acceptable salts were prepared for use as antifungal agents. Thus, mulundocandin underwent mono- and dibenylation on treatment with benzyl alc. and a catalytic amount of p-toluenesulfonic acid in 1,4-dioxane. Ornithine-5-benzylmulundocandin underwent Mannich reaction with a various secondary amines.
- ST mulundocandin based cyclohexapeptide prepn antifungal; peptide cyclohexa mulundocandin based prepn antifungal
- IT Fungicides
(Mannich reaction of with mulundocandin derivative)
- IT Peptides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(cyclic; Mannich reaction of with mulundocandin derivative)
- IT 92-54-6, 1-Phenylpiperazine 102-97-6, n-Isopropylbenzylamine 103-49-1, Dibenzylamine 123-75-1, Pyrrolidine, reactions 288-32-4, Imidazole, reactions 626-58-4, 4-Methylpiperidine 1008-91-9, 1-(4-Pyridyl)piperazine 1011-15-0, 1-(2-Fluorophenyl)piperazine 1012-91-5, 1-(2,6-Dimethylphenyl)piperazine 2252-63-3 2759-28-6, 1-Benzylpiperazine 3378-72-1, n-tert-Butylbenzylamine 4897-50-1, 4-Piperidinopiperidine 15532-75-9 20980-22-7 34803-66-2, 1-(2-Pyridyl)piperazine 39512-50-0, 1-(2-Chlorophenyl)piperazine 39593-08-3, 1-(4-Methylphenyl)piperazine 69628-75-7, 1-(1-Phenylethyl)piperazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(Mannich reaction with mulundocandin derivative)
- IT 110-89-4, Piperidine, reactions 2365-48-2, Methyl thioglycolate 108351-20-8, Mulundocandin
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel cyclohexapeptides based on mulundocandin for use as antifungal agents)
- IT 321660-96-2P 321660-97-3P 321661-50-1P 321745-36-2P 321745-66-8P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)

(preparation of novel cyclohexapeptides based on mulundocandin for use as
antifungal agents)

IT 321660-98-4P 321660-99-5P 321661-01-2P
321661-04-5P 321661-05-6P 321661-06-7P
321661-07-8P 321661-09-0P 321661-11-4P
321661-13-6P 321661-15-8P 321661-17-0P
321661-19-2P 321661-20-5P 321661-21-6P
321661-22-7P 321661-23-8P 321661-24-9P
321661-25-0P 321661-26-1P 321661-28-3P
321661-30-7P 321661-31-8P 321661-32-9P
321661-33-0P 321661-34-1P 321661-43-2P
321661-44-3P 321661-45-4P 321661-46-5P
321661-48-7P 321661-49-8P 321661-52-3P 321661-54-5P 321661-55-6P
321661-56-7P 321661-57-8P 321745-38-4P 321745-40-8P
321745-42-0P 321745-44-2P 321745-46-4P
321745-48-6P 321745-50-0P 321745-52-2P
321745-54-4P 321745-56-6P 321745-58-8P
321745-60-2P 321745-62-4P 321745-64-6P 321745-68-0P
321745-70-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)

(preparation of novel cyclohexapeptides based on mulundocandin for use as
antifungal agents)

IT 108-98-5, Thiophenol, reactions 2038-03-1, 4-(2-Aminoethyl)morpholine

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with mulundocandin derivative)

IT 321661-58-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; preparation of novel cyclohexapeptides based on mulundocandin for
use as antifungal agents)

IT 321660-98-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)

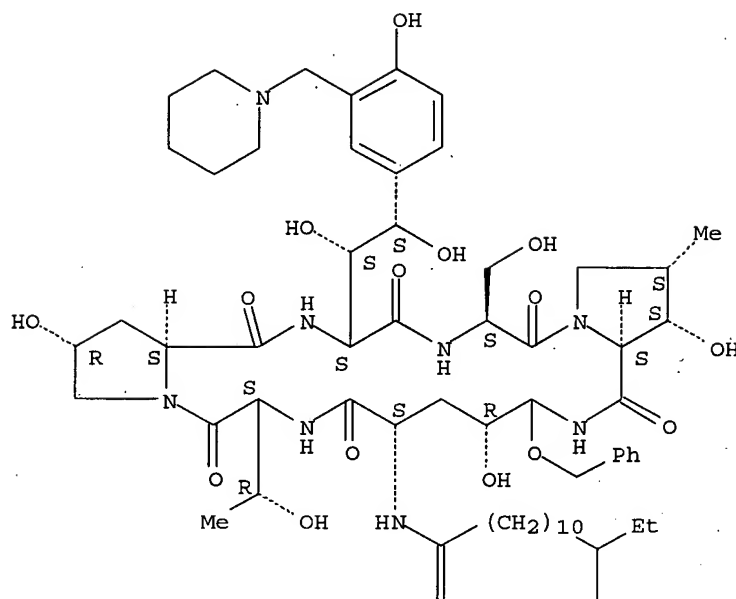
(preparation of novel cyclohexapeptides based on mulundocandin for use as
antifungal agents)

RN 321660-98-4 HCAPLUS

CN Mulundocandin, 1-[(4R)-4-hydroxy-N2-(12-methyl-1-oxotetradecyl)-5-(
phenylmethoxy)-L-ornithine]-4-[(4S)-4-hydroxy-4-[4-hydroxy-3-(1-
piperidinylmethyl)phenyl]-L-threonine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 321660-98-4P 321660-99-5P 321661-01-2P
 321661-04-5P 321661-05-6P 321661-06-7P
 321661-07-8P 321661-09-0P 321661-11-4P
 321661-13-6P 321661-15-8P 321661-17-0P
 321661-19-2P 321661-20-5P 321661-21-6P
 321661-22-7P 321661-23-8P 321661-24-9P
 321661-25-0P 321661-26-1P 321661-28-3P
 321661-30-7P 321661-31-8P 321661-32-9P
 321661-33-0P 321661-34-1P 321661-43-2P
 321661-44-3P 321661-45-4P 321661-46-5P
 321745-40-8P 321745-42-0P 321745-44-2P
 321745-46-4P 321745-48-6P 321745-50-0P
 321745-52-2P 321745-54-4P 321745-56-6P
 321745-58-8P 321745-60-2P 321745-62-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel cyclohexapeptides based on mulundocandin for use as antifungal agents)

L12 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:996828 HCAPLUS

DN 124:146869

ED Entered STN: 22 Dec 1995

TI Preparation of cyclopeptide antifungal and anti-pneumocystis compounds.

IN Balkovec, James M.; Bouffard, Frances Aileen; Black, Regina M.

PA Merck and Co., Inc., USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12P-0021/04
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1, 10

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9527074	A1	19951012	1995WO-US03948	19950331
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, UZ				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	<u>US---5541160</u>	A	19960730	1994US-0222157	19940404
	AU---9521307	A1	19951023	1995AU-0021307	19950331
PRAI	1994US-0222157	A	19940404		
	1995WO-US03948	W	19950331		

R8 = Appl's

→ R8

Applie. amendin
around;

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9527074	ICM	C12P-0021/04
	IPCI	C12P0021-04 [ICM,6]
	IPCR	A61K0038-00 [N,A]; A61K0038-00 [N,C]; C07K0007-00 [I,C]; C07K0007-56 [I,A]
	ECLA	C07K007/56
US---5541160	IPCI	C12P0021-04 [ICM,6]
	IPCR	A61K0038-00 [N,A]; A61K0038-00 [N,C]; C07K0007-00 [I,C]; C07K0007-56 [I,A]
	NCL	514/011.000; 530/317.000
	ECLA	C07K007/56
AU---9521307	IPCI	C12P0021-04 [ICM,6]
OS	MARPAT 124:146869	
GI		

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; R = alkyl, alkenyl, Ph, biphenyl, naphthyl, terphenyl, alkylamino, dialkylamino, alkoxyaryl; R1, R2, R4 = H, OH; R3 = H, OH, O(CH2)nNRVRVI (RV, RVI, RVII = H, alkyl), O(CH2)nNRVRVIRVII+Y-; n = 2-6; Y = counterion; R5 = H, Me, OH; R6 = H, Me; R7 = H, Me, CH2C(:O)NH2, (CH2)2NRVRVI, (CH2)2NRVRVIRVII+Y-; R8 = Cl, Br, iodo, NO2, N3, (CH2)0-4NH2, (CH2)0-4NHalkyl, (CH2)0-4N(alkyl)2, (CH2)0-3CH(:NOH), NHC(:O)(CH2)1-6NH2, NHC(:O)(CH2)1-6NHC(:NH)(CH2)0-3H], were prepared. Thus, title compound (II) (prepared from pneumocandin B0) showed a min. fungicidal concentration of 0.25 µg/mL against Candida albicans MY1055.

ST echinocandin analog prepn antifungal; pneumocandin analog prepn antifungal; cyclopeptide prepn antifungal

IT Pneumocystis
 (infection treatment; preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

IT Fungicides and Fungistats
 (preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

IT Peptides, preparation
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cyclo-, preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

IT	173305-50-5P	173305-51-6P	173305-52-7P	173305-53-8P	173305-54-9P
	173305-55-0P	173305-56-1P	173305-57-2P	173305-59-4P	173305-60-7P
	173305-62-9P	173305-64-1P	173305-66-3P	173305-68-5P	173305-70-9P
	173305-71-0P	173305-72-1P	173305-73-2P	173305-74-3P	173305-75-4P
	173305-76-5P	173305-77-6P	173305-78-7P	173305-79-8P	173305-80-1P

173305-81-2P 173305-82-3P 173305-83-4P 173397-50-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

IT 110-53-2, n-Pentyl bromide 619-42-1, Methyl 4-bromobenzoate 2208-07-3, Ethyl acetimidate hydrochloride 5470-11-1, Hydroxylamine hydrochloride 16748-79-1, Z-Gly-OPfp 24850-33-7, Allyltributyltin 29558-77-8, 4-(4-Bromophenyl)phenol 71018-21-8 77987-49-6 79411-15-7 135575-42-7, Pneumocandin B0 138516-82-2 150167-56-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

IT 63619-51-2P 158937-25-8P 158937-30-5P 158938-08-0P 166663-25-8P 173305-84-5P 173305-85-6P 173305-86-7P 173305-87-8P 173305-88-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

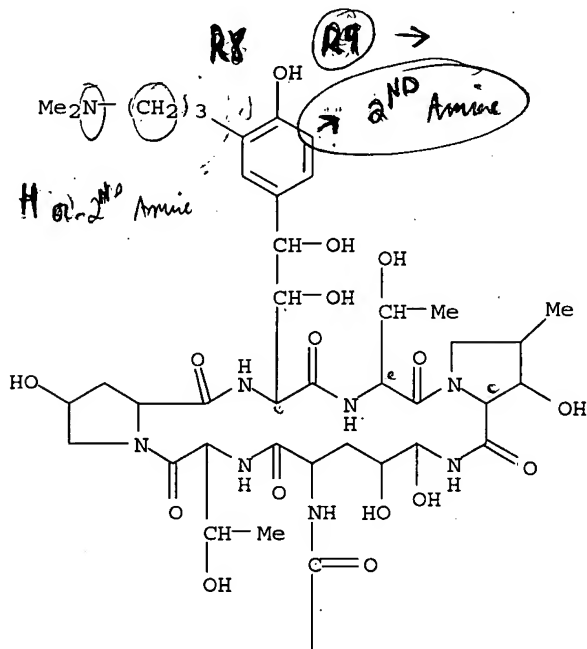
IT 173305-82-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

RN 173305-82-3 HCAPLUS

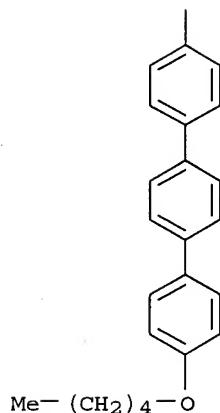
CN Echinocandin B, 1-[(4R,5R)-4,5-dihydroxy-N2-[[4'-(pentyloxy)[1,1':4',1''-terphenyl]-4-yl]carbonyl]-L-ornithine]-4-[4-[3-[3-(dimethylamino)propyl]-4-hydroxyphenyl]-(S)-4-hydroxy-L-threonine]-(9CI) (CA INDEX NAME)



PAGE 1-A

Ref. doesn't
total the
limit of appl.

PAGE 2-A



IT 173305-82-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

=> b uspatall

FILE 'USPATFULL' ENTERED AT 08:27:45 ON 08 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 08:27:45 ON 08 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitrn hitrn l14 tot

L14 ANSWER 1 OF 1 USPATFULL on STNAN 96:67980 USPATFULLTI Antifungal and anti-pneumocystis compounds, compositions containing such compounds, and methods of use

IN Balkovec, James M., North Plainfield, NJ, United States

Bouffard, Frances A., Scotch Plains, NJ, United States

Black, Regina M., Cranford, NJ, United States

PA Merck & Co., Inc. Rahway, NJ, United States (U.S. corporation)

PI US--5541160 19960730

AI 1994US-0222157 19940404 (8)

DT Utility

FS Granted

EXNAM Primary Examiner: Gibson, Sharon; Assistant Examiner: Scalzo, Catherine S. Kilby

LREP Korsen, Elliott, Daniel, Mark R.

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1240

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds represented by the formula I (SEQ ID NO. 1) are disclosed:
 ##STR1## as well as pharmaceutically acceptable salts and hydrates thereof. R.sup.I represents C.sub.9 to C.sub.19 alkyl, C.sub.9 to C.sub.19 alkenyl, an aryl group which includes phenyl, biphenyl, naphthyl and terphenyl or a C.sub.1 to C.sub.12 alkyl, alkylamino, dialkylamino or alkoxyaryl group.

R.sup.1, R.sup.2 and R.sup.4 independently represent H or --OH.

R.sup.3 represents H, --OH, --O(CH.sub.2).sub.n NR.sup.V R.sup.VI, where

R.sup.V and R.sup.VI independently represent H or C.sub.1-4 alkyl, or --O(CH.sub.2).sub.n NR.sup.V R.sup.VI R.sup.VII+ Y.sup.-, wherein R.sup.V and R.sup.VI are as defined above, R.sup.VII represents H or C.sub.1-4 alkyl, n is an integer of from 2-6 inclusive, and Y represents a counterion.

R.sup.5 represents H, --CH.sub.3 or --OH;

R.sup.6 represents H or --CH.sub.3 ;

R.sup.7 represents H, --CH.sub.3, --CH.sub.2 C(.dbd.O)NH.sub.2, --(CH.sub.2).sub.2 NR.sup.V R.sup.VI or --(CH.sub.2).sub.2 NR.sup.V R.sup.VI R.sup.VII+ Y.sup.- with n, R.sup.V, R.sup.VI R.sup.VII and Y as defined above;

and R.sup.8 represents --Cl, --Br, --I, --NO.sub.2, --N.sub.3, --(CH.sub.2).sub.0-4 NH.sub.2, --(CH.sub.2).sub.0-4 NH(C.sub.1-4 alkyl), --(CH.sub.2).sub.0-4 N(C.sub.1-4 alkyl).sub.2, --(CH.sub.2).sub.0-3 CH(.dbd.NOH), --NHC(.dbd.O)(CH.sub.2).sub.1-6 NH.sub.2 or --NHC(.dbd.O)(CH.sub.2).sub.1-6 NHC(.dbd.NH)(CH.sub.2).sub.0-3 H.

Pharmaceutical compositions and methods of use are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

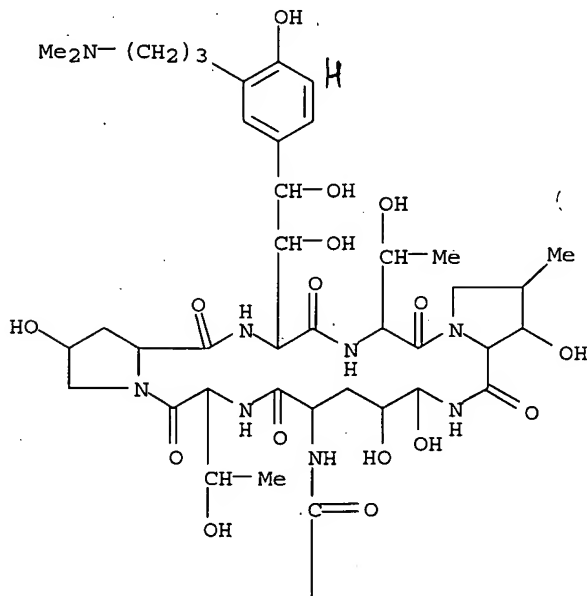
IT 173305-82-3P

(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

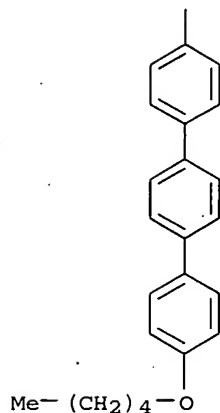
RN 173305-82-3 USPATFULL

CN Echinocandin B, 1-[(4R,5R)-4,5-dihydroxy-N2-[[4'-(pentyloxy)[1,1':4',1''-terphenyl]-4-yl]carbonyl]-L-ornithine]-4-[4-[3-[3-(dimethylamino)propyl]-4-hydroxyphenyl]-(S)-4-hydroxy-L-threonine]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 173305-82-3P
(preparation of cyclopeptide antifungal and anti-pneumocystis compds.)

=> d his

(FILE 'HOME' ENTERED AT 08:13:03 ON 08 MAR 2006)

FILE 'HCAPLUS' ENTERED AT 08:13:57 ON 08 MAR 2006

L1 1 (US2002-031764 OR EP1999-114649 OR WO2000-EP6769)/AP,PRN

FILE 'REGISTRY' ENTERED AT 08:15:59 ON 08 MAR 2006

FILE 'HCAPLUS' ENTERED AT 08:16:03 ON 08 MAR 2006

L2 TRA L1 1- RN : 83 TERMS

FILE 'REGISTRY' ENTERED AT 08:16:03 ON 08 MAR 2006

L3 83 SEA L2
ACT AUD764F1/A

L4 STR

L5 4101 SEA FILE=REGISTRY SSS FUL L4

ACT AUD764F2/Q

L6 STR

L7 STR L6

L8 50 L7 SAM SUB=L5

L9 STR L6

L10 0 L9 SAM SUB=L5

L11 47 L9 FULL SUB=L5

SAV TEM L11 AUD764F3/A

FILE 'HCAPLUS' ENTERED AT 08:25:00 ON 08 MAR 2006

L12 3 L11

FILE 'HCAOLD' ENTERED AT 08:25:29 ON 08 MAR 2006

L13 0 L11

FILE 'USPATFULL, USPAT2' ENTERED AT 08:25:41 ON 08 MAR 2006

L14 1 L11

=>